

REMARKS

The Letter submitted concurrently with the filing of the above-identified application is noted. In this Letter, it was indicated that claims to be examined on the merits in the above-identified application would be submitted in due course. The present Preliminary Amendment submits such claims to be examined on the merits herein.

By the present amendments, original claim 1 has been cancelled without prejudice or disclaimer, and new claims 2-21 are being added to the application. Of these newly added claims, claims 2 and 13 are independent claims; moreover, all of the presently submitted claims are directed to a process for manufacturing a semiconductor integrated circuit device.

Claim 2 defines a process including forming a metal layer including copper as its principal component over an insulating film over a first major surface of the wafer, with this insulating film having a wiring groove pattern; removing the metal layer outside the wiring groove pattern by a chemical mechanical polishing, in a chemical mechanical polishing section of a single wafer processing apparatus; thereafter, transferring the wafer to a post cleaning section of this single wafer processing apparatus, keeping the first major surface of the wafer wet with moving water; performing scrub or brush cleaning to this first major surface with a liquid chemical or pure water in this post cleaning section; and, thereafter, making the first major surface of the wafer dry, with the recited processing apparatus having a light shielding structure enclosing the post cleaning section and between the chemical mechanical polishing section and the post cleaning section.

Claim 13 recites a process corresponding to that recited in claim 2, but recites forming a metal layer without specifying that the metal layer includes copper as its principal component, and recites that the insulating film has first and second wiring groove patterns, with the metal layer being removed outside these patterns by a chemical mechanical polishing method so as to leave the metal layer in the first and second wiring groove patterns and thereby electrically dividing metal wiring members inside the first and second wiring groove patterns.

Claims 3 and 14, dependent respectively on claims 2 and 13, recite that the moving water is a water shower; and claims 4 and 15, dependent respectively on claims 3 and 14, recite that metal layer left in the groove patterns are portions of metal wiring of a dual damascene wiring. Claims 5 and 16, dependent respectively on claims 4 and 15, recite that the step of making the recited surface of the wafer dry is performed prior to a substantial progress of corrosion of the metal layer left in the groove patterns; and claims 6 and 17, dependent respectively on claims 5 and 16, recite that the first major surface of the wafer is kept wet from the end of the removing to the end of the scrub or brush cleaning. Claims 7 and 18, dependent respectively on claims 6 and 17, recite that the moving water is a pure water shower. Claim 8, dependent on claim 2, recites that the step of forming the metal layer includes forming this metal layer over an upper surface of the insulating film and inside the wiring groove pattern by electroplating. Claims 9 and 19, dependent respectively on claims 2 and 13, recite that metal layer left in the wiring groove patterns constitutes a portion of a metal wiring of a dual damascene wiring; and claims 10 and 21, dependent respectively on claims 2 and 13, recite that the first major surface of the wafer is kept wet from the end of the removing step to the end

of the cleaning step. Claims 11 and 12, dependent respectively on claims 3 and 4, recite that the light shielding structure includes a light shielding sheet; and claim 20, dependent on claim 13, recites that the cleaning is performed prior to a substantial progress of corrosion of the metal layer left in the first and second wiring groove patterns.

Note the paragraph bridging pages 5-7 of Applicants' specification; note also pages 23-28 thereof.

Entry of the present amendments; and, subsequent thereto, examination of the above-identified application in due course, are respectfully requested.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to the Deposit Account No. 01-2135 (Case No. 501.37370CC4) and please credit any excess fees to such Deposit Account.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read "William I. Solomon", is written over a horizontal line.

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